



Marine Corps Base Camp Lejeune

Interim Proposed Remedial Action Plan

Operable Unit No. 10

This Fact Sheet provides information regarding the Interim Proposed Remedial Action Plan (PRAP) for surficial groundwater for Operable Unit (OU) No. 10 at Marine Corps Base (MCB) Camp Lejeune, North Carolina. MCB Camp Lejeune has been investigating sites at the base through the Department of Defense (DoD) Installation Restoration (IR) Program. The goal of the IR Program is to identify, assess, characterize, and cleanup or control contamination from past hazardous waste disposal operations.

Overview

Marine Corps Base (MCB) Camp Lejeune is a training base for the U.S. Marine Corps, located in Onslow County, North Carolina. The facility covers approximately 236 square miles and includes 14 miles of shoreline. Operable Unit (OU) No. 10 is one of 14 OUs within MCB Camp Lejeune. The goal of this Interim Proposed Remedial Action Plan (PRAP) is to remediate (clean up) the on-site shallow groundwater (water just beneath the ground surface) which is contaminated with fuel by-products and solvents. This cleanup is "interim" because it is not necessarily the final cleanup for the site since other studies, and possible cleanup actions, are focusing on contamination at other areas of the site. Site soil contamination was addressed in an earlier Interim PRAP (1994) and cleanup plans are underway.

OU No. 10 Background

OU 10, the Camp Geiger Area Fuel Farm, refers primarily to five, 15,000-gallon above ground storage tanks (ASTs), a pump house, and a fuel unloading pad situated within Camp Geiger. Camp Geiger is located at the extreme northwest corner of MCB Camp Lejeune and the site is located just north of Fourth and G Streets. The area has long been used as a fuel storage and dispensing area. Several documented leaks in distribution lines occurred over the years and date back to 1957-1958. Cleanup operations were initiated as the leaks occurred but despite these efforts, petroleum by-product contamination remained. The ASTs are scheduled for dismantlement in 1995 as part of clearing operations for a six lane divided highway.

Previous Studies

The following studies were conducted at OU No. 10:

- ❖ Initial Assessment Study, 1983
- ❖ Confirmation Study, 1990
- ❖ Focused Feasibility Study, 1990
- ❖ Comprehensive Site Assessment, 1992
- ❖ Interim Remedial Action Remedial Assessment/Feasibility Study, 1993 (contaminated soil)
- ❖ Interim Feasibility Study, 1994 (contaminated groundwater)
- ❖ Comprehensive Remedial Investigation, 1994

Previous investigations have resulted in characterizing soil, groundwater, and surface water/sediment contamination. The primary contaminants of concern in the shallow aquifer (e.g., an area beneath the ground surface where water collects) are BTEX (benzene, toluene, and xylene) and solvents (i.e., TCE and DCE). There are no drinking water supply wells in the area. In addition, base drinking water is obtained from the deeper Castle Hayne aquifer.

Human Health/Ecological Risk Assessment

As part of the Remedial Investigation, a Baseline Human Health Risk Assessment and Ecological Risk Assessment were conducted. This information, in addition to the Feasibility Study, was considered when proposing and evaluating the Remedial Action Alternatives (RAAs). The results of the Baseline Human Health Risk Assessment indicated that the health risk associated with the site is in excess of the acceptable range.

The total risk was increased by the future potential exposure to groundwater and current potential exposure to fish (through eating). The ecological risk assessment indicated that the aquatic community within nearby Brinson Creek did not appear to be adversely impacted by surface water or sediment quality.

Interim Remedial Assessment Alternatives

In order to protect human health, the following RAAs were considered and No. 5 is proposed:

	Present Worth Cost
RAA 1 No Action	\$0
RAA 2 No Action with Institutional Controls	\$299,800
RAA 3 Groundwater Collection and On-site Treatment	\$3,000,500
RAA 4 In Situ Air Sparging and Off-Gas Carbon Adsorption	\$2,459,600
RAA 5 In Well Aeration and Off-Gas Carbon Adsorption	\$2,519,700

Proposed Remedial Action Plan

The interim proposed remedial action is an alternative that will control the source of contamination. RAA 5 is proposed due to its implementability issues, potential short and long-term effectiveness, protection of human health, and cost effectiveness. The selection of RAA 5, however, is dependent on the results of a field pilot-scale test that will be completed at a similar site at MCB Camp Lejeune. If the results of this test indicate that the technology is not effective or implementable, RAA 3 will be selected.

RAA 5 involves installing a line of "aeration wells" and providing air circulation inside the well. The circulating air flow "volatilizes" or changes the form of the chemicals of concern from a liquid (water) to a vapor. The vapor is collected and conveyed to carbon adsorption units adjacent to each well system. These units "strip" or remove the contaminants from the vapor. This technology is innovative, but has proven to be successful in case studies.

Public Participation

The public is encouraged to review and comment on the PRAP and other documents pertaining to OU No. 10. The Interim Proposed Plans and other information/reports pertaining to these OUs are available at the information repositories at the following locations:

Onslow County Library
58 Doris Avenue East
Jacksonville, NC 28540
(910) 455-7350

MCB, Camp Lejeune
Building 67, Room 238 Marine Corps Base
Camp Lejeune, NC 28542
(910) 451-5068

MCB Camp Lejeune will hold a public information meeting on May 10, 1995 at the Onslow County Public Library at 7:00 p.m. This public information meeting is held to describe the Proposed Plans. The Navy/Marine Corps will hold a 30-day public comment period from May 10, 1995 to June 10, 1995. The public comment period will allow for public participation in the final RAA selection process.

Point of Contact

For additional information, or to provide written comments to the PRAP, please contact:

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